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AN
ENVIRONMENTAL
LAW PRACTICE

347985

January 24, 2001

VIA HAND DELIVERY

Anderson Lee Hartzell, Esquire
Regional Supervising Counsel
PADEP - Office of Chief Counsel
Southeast Regional Office
Lee Park, Suite 6010
555 North Lane
Conshohocken, PA 19428

Re: **Crater Resources Superfund Site - Quarry 4**

Dear Andy:

We represent Liberty Property Limited Partnership and Liberty Property Trust (collectively, "Liberty"). As you requested, we are submitting to you in advance of our meeting, a summary of the legal and technical issues presented by Liberty's proposal for satisfying the capping requirements for Quarry 4 as set forth in the Record of Decision ("ROD") for the Crater Resources Superfund Site (the "Crater Site").

As I mentioned in my previous correspondence, Liberty is the owner of property at the Crater Site commonly referred to as the Yellow Property, which is located south of Renaissance Boulevard and includes the 2201 and 2301 Renaissance Boulevard properties. The Yellow Property contains a portion of a former sand and gravel quarry (Quarry 4) that was backfilled close to 30 years ago. The U.S. Environmental Protection Agency ("EPA") conducted a Remedial Investigation/Feasibility Study ("RI/FS") of the Crater Site, which included investigation of four quarries - Quarry Nos. 1 through 4. Only Quarry 4 is located on Liberty's Yellow Property. Quarry Nos. 1 through 3 are located off-site and to the south and west of the 2201 and 2301 properties. The RI/FS showed that Quarry Nos. 1 through 3 received waste ammonia liquor ("WAL"), the waste of concern at the Crater Site. Unlike the other quarries at the Crater Site, there is no evidence that any WAL was ever discharged into Quarry 4. While some anthropogenic constituents have been discovered in Quarry 4, it is believed that these came from fill material placed in the quarry close to 30 years ago. As discussed later in this letter, sampling data shows that no compounds of concern attributable to the materials historically used to fill Quarry 4 were detected above applicable regulatory levels in groundwater hydraulically downgradient of Quarry 4.

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EPA has issued a ROD for the Crater Site, which requires that all four quarries be capped in accordance with Pennsylvania regulations for residual waste landfill caps at 25 Pa. Code §§ 288.234 and 288.236-237. Pursuant to a settlement being negotiated with EPA, Liberty intends to cap that portion of Quarry 4 located on its Yellow Property (the on-site portion) and possibly the remainder of Quarry 4 located on neighboring property to the south owned by Gulph Mills Golf Course (the off-site portion). Liberty has already capped much of Quarry 4 in the course of its development of office buildings at the property and believes that the existing conditions over the quarry satisfy Pennsylvania's residual waste landfill cap requirements. The purpose of our meeting is to make this demonstration to the Pennsylvania Department of Environmental Protection ("PADEP") and EPA, obtain their concurrence, and then make a final decision as to Liberty's capping of the off-site portion.

PADEP regulations governing final cover for residual waste landfills, set forth at 25 Pa. Code § 288.234, require that the landfill be covered with a cap of clay or synthetic material, followed by a drainage layer, and a uniform layer of cover material. 25 Pa. Code § 288.234(a). The regulations set forth more particularized requirements for the top two layers, but also provide that PADEP may waive or modify the cap and drainage layer requirements based upon a demonstration that it is not necessary to limit infiltration. 25 Pa. Code § 288.234(b). Further, the regulations afford PADEP the discretion to approve site-specific design requirements for the uniform layer of material and, in the absence of such, set forth default design requirements. 25 Pa. Code § 288.234(e). Finally, the regulations set forth requirements for revegetation of the cover. 25 Pa. Code §§ 288.236-237.

Enclosed with this letter is a report (the "Report") prepared by Liberty's technical consultant, Penn E&R, that describes the existing cover that has been placed over Quarry 4 and demonstrates why such cover satisfies the regulatory requirements and/or meets the criteria for modification of the standard requirements. The Report further describes site-specific design requirements appropriate for the uniform layer of cover material over the cap and drainage layers. As noted above, the Yellow Property includes the 2201 and 2301 Renaissance Boulevard properties. Liberty has already developed 2201 Renaissance Boulevard with an office building, associated parking lots, and a "dry" stormwater detention basin. Liberty is now in the process of developing 2301 Renaissance Boulevard with a second office building, associated parking lots, and two "wet" stormwater detention basins. Figure 1 of the Report shows the location and layout of these properties in relation to Quarry 4. It also shows that the quarry is covered by (1) a small portion of the southern end of the 2201 building, (2) parking lots associated with the 2201 building, (3) the dry stormwater detention basin, (4) a portion of one of the wet stormwater detention basins, and (5) varying depths of graded and vegetated soil cover. Figure 1 outlines the surface of Quarry 4 in relation to these features in two colors, yellow and blue. As demonstrated in the Report, Liberty believes that the yellow shaded areas satisfy the standard residual waste landfill cap requirements and the blue shaded areas satisfy the criteria, set forth in 25 Pa. Code § 288.234(b), pursuant to which PADEP may modify the standard cap and drainage layer requirements based on a demonstration that it is not necessary to limit infiltration.

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The yellow shaded areas on Figure 1 meet or exceed PADEP's standard cap and drainage layer requirements. These areas consist of: (1) the entire existing dry stormwater detention basin, (2) a portion of the side wall of one wet stormwater detention basin, and (3) a small portion of the southern end of the 2201 Renaissance building. The dry detention basin has already been lined with an impermeable 40-mil PVC liner, covered with soil, and revegetated. A 40-mil PVC liner will also be used to line the small portion of the western end of the quarry that lies beneath the area where the new wet stormwater detention basin is to be constructed. That area, like the dry basin, will also be covered with soil and revegetated in accordance with 25 Pa. Code § 288.236. The detention basins have been designed so that no erosion of the soil layer overlying the liner will occur. Water in both the dry basin and the wet basin will drain to a natural swale located to the west of Quarry 4. The Report provides further detail regarding the construction of the basins and demonstrates that the material on top of the liners serves as an appropriate uniform layer of material for these features and meets the applicable performance standards set forth in 25 Pa. Code § 288.234(d) (i.e., preventing vectors, covering waste, noncombustible, capable of preventing frost damage, etc.). When site-specific alternative design requirements such as these are established, the default provisions set forth at 25 Pa. Code § 288.234(e) are not applicable. 25 Pa. Code § 288.234(e).

Penn E&R has also identified in yellow shading on Figure 1, a small portion of the southern end of the 2201 Renaissance building that is located above Quarry 4. This four-story building meets and exceeds the residual waste capping requirements. The building is constructed of concrete, a bentonite-like material, recognized as suitable for capping in Table II of the cap design standards, and it is far less permeable than the maximum permeability standard 1.0×10^{-7} described in 25 Pa. Code § 288.234(a). No water will be able to infiltrate through the building into the underlying section of Quarry 4. The drainage layer consists of the gutters and water collection facilities on the roof of the building. All water that collects on top of the building will be transmitted from the roof to the on-site stormwater detention basins which themselves satisfy the PADEP residual waste capping requirements. The roof of the building serves as a sufficient layer of uniform material to protect the cap (i.e., the building). Obviously, no vegetation is necessary to protect the building as a cap. We, therefore, believe that the building satisfies the capping requirements for this portion of Quarry 4.

The blue shaded areas shown on Figure 1 satisfy the criteria, set forth in 25 Pa. Code § 288.234(b), pursuant to which PADEP may modify the standard cap and drainage layer requirements for residual waste landfill cover. That section of the regulations provides that PADEP may waive or modify the standard cap and drainage layer requirements based upon a demonstration that it is not necessary to limit infiltration into the waste. 25 Pa. Code § 288.234(b). The blue shaded areas on Figure 1 consist of: (1) parking lots associated with the 2201 Renaissance building and (2) varying depths of vegetated soil cover graded to promote surface water runoff from the quarry. As set forth in more detail in the Report, the blue shaded areas all have been or will be covered and graded sufficiently to limit infiltration into the historic fill material below. The northcentral portion of Quarry 4 is covered with more than 12 feet of soil and is further capped by an asphalt parking lot. The remainder of the blue shaded area over the quarry has been or will be covered with at least one foot of soil, graded to promote surface

water runoff from the quarry, and revegetated. In fact, the portion of the quarry located on the 2201 Renaissance property, which includes over 80 percent of the quarry, has been or will be covered with more than three feet of soil and graded to direct surface water off the quarry. The soil cover will be graded in accordance with 25 Pa. Code § 288.234(f) and will be sloped so that water drains from the soil cover to a natural drainage swale located to the south and west of Quarry 4. The soil cover will be revegetated in accordance with 25 Pa. Code § 288.236. Further, and most significantly, the Report demonstrates that no unacceptable leaching of any contaminants from Quarry 4 is currently occurring and the capping and grading described in this paragraph is or will be sufficient to limit infiltration into the quarry.

As indicated at the outset, unlike the other quarries at the Crater Site, there is no evidence that any WAL, the waste of concern at the Crater Site, was ever discharged into Quarry 4. While some anthropogenic constituents have been discovered in Quarry 4, it is believed that these came from fill material placed in the quarry close to 30 years ago. To date, no compounds of concern have been detected above EPA's Maximum Contaminant Levels ("MCLs") or PADEP's Medium Specific Concentration levels ("MSCs") in groundwater hydraulically downgradient of Quarry 4 which were attributable to the materials historically used to backfill Quarry 4. Accordingly, no contaminants have migrated nor are expected to migrate from infiltration of waters into the quarry in the future.

As summarized above and as demonstrated in the Report, the existing and planned cap for Quarry 4 satisfies PADEP requirements and/or meets the regulatory criteria for modification of the standard requirements. We therefore are requesting PADEP's concurrence in this determination so that Liberty may promptly resolve its remedial obligations for the Crater Site with EPA. If you have any questions concerning this letter or the enclosed Report, please feel free to contact us. Otherwise, we look forward to meeting with you on Thursday to discuss these issues.

Sincerely,



Brenda Hustis Gotanda
For MANKO, GOLD & KATCHER, LLP

BHG/gb
Enclosure

cc: Andrew Duchovnay, Esquire (EPA) (w/encl.) ✓
Mr. Bruce Hartlein (w/encl.)
James J. Bowes, Esquire (w/encl.)
Michael Christie, P.C. (w/encl.)
Joseph M. Manko, Esquire (w/encl.)
Mr. Darryl D. Borrelli (w/encl.)

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Penn E&R's Discussion on Quarry No. 4

January 25, 2001

I) QUARRY NO. 4

- History and Location
- Investigation of Soil Conditions in Quarry No. 4
 - Three Previous Investigations
 - Twenty-Two Soil Samples Submitted for Analysis
 - Soil Sample Results:
 - VOCs
 - SVOCs
 - Pesticides/PCBs
 - Metals
 - Cyanide
 - TCLP Test Results
- Groundwater Quality in the Vicinity of Quarry No. 4
 - Location of Pertinent Wells
 - Groundwater Flow Direction
 - Groundwater Sample Results:
 - VOCs
 - SVOCs
 - Metals
 - Cyanide

II) 2201/2301 RENAISSANCE PROPERTIES

- Layout of the 2201 and 2301 Properties
 - Construction Activities Completed on 2201
 - Construction Activities Underway on 2301
- Location of Quarry No. 4 in Relationship to 2201/2301
- Capping Activities Completed/Underway on Quarry No. 4

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EPA REGION III
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID 347985
PAGE # AR000689

IMAGERY COVER SHEET
UNSCANNABLE ITEM

| | |
|---------------------------------|-------------------------|
| SITE NAME | <u>CRATER Resources</u> |
| OPERABLE UNIT | <u>UAO</u> |
| ADMINISTRATIVE RECORDS- SECTION | VOLUME <u>I</u> |

| | |
|------------------------------------|--|
| REPORT OR DOCUMENT TITLE | <u>Response to Special</u> <u>Notice Letter - liberty property trust.</u> |
| DATE OF DOCUMENT | <u>1-24-01</u> |
| DESCRIPTION OF IMAGERY | <u>Summary of ANALYTICAL</u> <u>Results For Soil Samples collected in quarry #4</u> |
| NUMBER AND TYPE OF IMAGERY ITEM(S) | <u>1 oversized Chart</u> |

TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FOR GROUND WATER SAMPLES
OBTAINED FROM WELLS LOCATED
DOWNGRADIENT OF QUARRY NO. 4⁽¹⁾

| ANALYTICAL PARAMETERS | SAMPLE DESIGNATION/ANALYTICAL RESULTS ⁽²⁾ | | | PADEP RUA MSC ⁽³⁾ | USEPA MCL ⁽⁴⁾ |
|----------------------------|--|--------|--------|------------------------------------|-----------------------------|
| | MW-17D | MW-17S | MW-18S | | |
| Volatiles: | | | | | |
| Acetone | 19.6J | 5.0J | 3.0UJ | 3,700 | NSA |
| Carbon Disulfide | 0.68 | 0.50U | 0.50U | 1,900 | NSA |
| Methylene Chloride | 0.13B | 1.1B | 0.50U | 5 | 5 |
| Chloroform | 0.12J | 1.0 | 0.50U | 100 | 80 |
| 2-Butanone | 6.7J | 3.0UJ | 3.0UJ | 2,800 | NSA |
| Benzene | 1.2 | 0.50U | 0.50U | 5 | 5 |
| Toluene | 0.86 | 1.2J | 0.50U | 1,000 | 1,000 |
| Ethylbenzene | 0.15J | 0.50U | 0.50U | 700 | 700 |
| Total Xylenes | 0.52J | 0.50U | 0.50U | 10,000 | 10,000 |
| Semivolatiles: | | | | | |
| Phenol | 4J | 10U | 10U | 4,000 | 4 ⁽⁵⁾ |
| 2-Methylphenol | 0.6 | 10U | 10U | NSA | NSA |
| 4-Methylphenol | 1 | 10U | 10U | NSA | NSA |
| Napthalene | 4 | 10U | 10U | 100 | 100 ⁽⁶⁾ |
| Di-N-Butylphthalate | 10U | 10U | 0.7B | 3,700 | NSA |
| Bis(2-ethylhexyl)phthalate | 0.9 | 3B | 1B | 6 | NSA |
| Carbazole | 4J | 10U | 10U | NSA | NSA |
| Cyanide (total): | 74.0 | 0.67U | 0.67U | 200 | 200 |
| Metals (Dissolved): | | | | | |
| Aluminum | 184 | 12.8U | 12.8U | 200 | NSA |
| Arsenic | 2.2U | 2.2U | 2.2U | 50 | NSA |
| Barium | 95.4 | 111B | 126B | 2,000 | NSA |
| Beryllium | 0.2UL | 0.2UL | 0.2UL | 4 | NSA |
| Cadmium | 0.4UL | 0.4UL | 0.4UL | 5 | NSA |
| Calcium | 14,900 | 41,800 | 63,900 | NSA | NSA |
| Chromium | 17.6 | 1.1U | 1.6 | 100 | NSA |
| Cobalt | 4.3B | 5.2B | 4.8B | 2,200 | NSA |
| Copper | 9.7 | 1.6U | 4.7 | 1,000 | NSA |
| Iron | 152 | 8.8U | 48.3 | 300 | NSA |
| Lead | 2.3UL | 2.3UL | 2.3UL | 5 | NSA |
| Magnesium | 3,460 | 4,910 | 2,400 | NSA | NSA |
| Manganese | 18.4 | 458 | 215 | 50 | NSA |
| Mercury | 0.10U | 0.21B | 0.23 | 2 | NSA |
| Nickel | 5.0B | 3.5 | 6.1B | 100 | NSA |
| Potassium | 90,700 | 5,660 | 2,260 | NSA | NSA |
| Selenium | 9.9L | 8.0L | 21.6L | 50 | NSA |
| Sodium | 56,600 | 29,400 | 5,120 | NSA | NSA |
| Thallium | 4.2U | 4.2U | 4.2U | 2 | NSA |
| Vanadium | 1.5B | 1.6B | 1.7B | 2 | NSA |
| Zinc | 37.1 | 10.6 | 155 | 2,000 | NSA |
| Metals (total): | | | | | |
| Aluminum | 24,400 | 3,060 | 1,230 | NSA | 200 |
| Antimony | 14.0B | 11.5B | 12.3B | NSA | 6 |
| Arsenic | 40.1 | 5.0B | 5.8B | NSA | 5 |
| Barium | 450 | 133 | 54.0 | NSA | 200 |
| Beryllium | 245 | 0.59L | 0.22UL | NSA | 4 |
| Cadmium | 29.4 | 0.44UL | 0.44UL | NSA | 5 |

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TABLE 2
SUMMARY OF ANALYTICAL RESULTS
FOR GROUND WATER SAMPLES
OBTAINED FROM WELLS LOCATED
DOWNGRADIENT OF QUARRY NO. 4⁽¹⁾

| ANALYTICAL PARAMETERS | SAMPLE DESIGNATION/ANALYTICAL RESULTS ⁽²⁾ | | | PADEP RUA MSC ⁽³⁾ | USEPA MCL ⁽⁴⁾ |
|--------------------------|--|---------|--------|------------------------------------|-----------------------------|
| | MW-17D | MW-17S | MW-18S | | |
| Calcium | 635,000 | 169,000 | 64,600 | NSA | NSA |
| Chromium | 126 | 10.8 | 10.8 | NSA | 100 |
| Cobalt | 1,010J | 58.8J | 3.2B | NSA | NSA |
| Copper | 605 | 23.7 | 13.1 | NSA | 1,300 |
| Iron | 57,400 | 9,330 | 9,400 | NSA | 300 |
| Lead | 499 | 102 | 17.5 | NSA | 15 |
| Magnesium | 17,900 | 12,900 | 2,230 | NSA | NSA |
| Manganese | 10,800 | 2,430 | 288 | NSA | 50 |
| Mercury | 4.3 | 0.23B | 0.23B | NSA | 2 |
| Nickel | 2,380 | 53.3 | 6.4 | NSA | 100 ⁽⁵⁾ |
| Potassium | 139,000 | 5,960 | 2,110 | NSA | NSA |
| Selenium | 6.0UL | 4.0UL | 6.3B | NSA | 50 |
| Silver | 8.1 | 2.1 | 1.6U | NSA | 100 ⁽⁵⁾ |
| Sodium | 66,900 | 23,700 | 3,580 | NSA | NSA |
| Thallium | 11.3L | 4.7UL | 4.7UL | NSA | 2 |
| Vanadium | 35.2 | 4.9 | 8.8 | NSA | 2 |
| Zinc | 8,110 | 85.8 | 72.2 | NSA | 5,000 |

Notes

- (1) - Analytical results were obtained from a report prepared by Environmental Resources Management entitled "The Crater Resources Participating Parties Group, Remedial Investigation Report, Crater Resources, Site", dated September 24, 1998.
- (2) - All results are reported in micrograms per liter. Also, only those compounds detected above the laboratory detection limit are shown.
- (3) - Pennsylvania Department of Environmental Protection, Land Recycling and Environmental Remediation Standards Act, Residential Used-Aquifer, Medium Specific Concentration for Organic and Inorganic Substances in Ground Water, August 16, 1997.
- (4) - United States Environmental Protection Agency Drinking Water Standards, Maximum Contaminant Levels, Summer, 2000
- (5) - No USEPA MCL was available for this compound. This is a USEPA Lifetime Health Advisory Level.
- J - This result should be considered a quantitative estimate.
- B - (Organics) - This result is qualitatively invalid because the compound/analyte was also detected in a blank at a similar concentration.
- B - (Inorganics) - The result is between the estimated quantitation limit and the instrument detection limit
- U - This analyte was not detected. The numeric value represents the sample quantitation/detection limit for this analyte.
- D - Determined in diluted sample
- UJ - This analyte was not detected. The numeric value that represents the quantitation/detection limit for this analyte is a quantitative estimate
- UL - This compound was analyzed but not detected. The numerical value that represents the quantitation limit of the compound is a biased low quantitative estimate
- L - This result should be considered a biased low quantitative estimate
- K - This result should be considered a biased high quantitative estimate
- ND - None detected
- PADEP - Pennsylvania Department of Environmental Protection
- RUA - Residential Used Aquifer
- MSC - Medium Specific Concentration
- USEPA - United States Environmental Protection Agency
- MCL - Maximum Contaminant Level
- NSA - No Standard Available
- Bold** - This compound was detected above its USEPA MCL or PADEP MSC

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NOTE:
(1) THE BOUNDARIES OF QUARRY NOS. 2, 3 & 4 ARE ONLY APPROXIMATE AND ARE BASED ON A REVIEW OF HISTORICAL AERIAL PHOTOGRAPHS
(2) THE SOIL BORINGS, TEST TRENCHES AND MONITORING WELL LOCATIONS ARE APPROXIMATE.

- LEGEND**
- PB-4 Pennoni 1993 Soil Sample/Boring Location
 - ★ O4-1/O4-B1 ERM 1996/1997 Soil Sample/Boring Location
 - ▲ SB-1/T-7 Penn E&R, 1998 Test-Pit/Soil Sample Location
 - ⊕ MW-17S Monitoring Well Location
 - Assumed/Anticipated Direction of Ground Water Flow From Figure 19 in The ERM September 24, 1998 Remedial Investigation Report

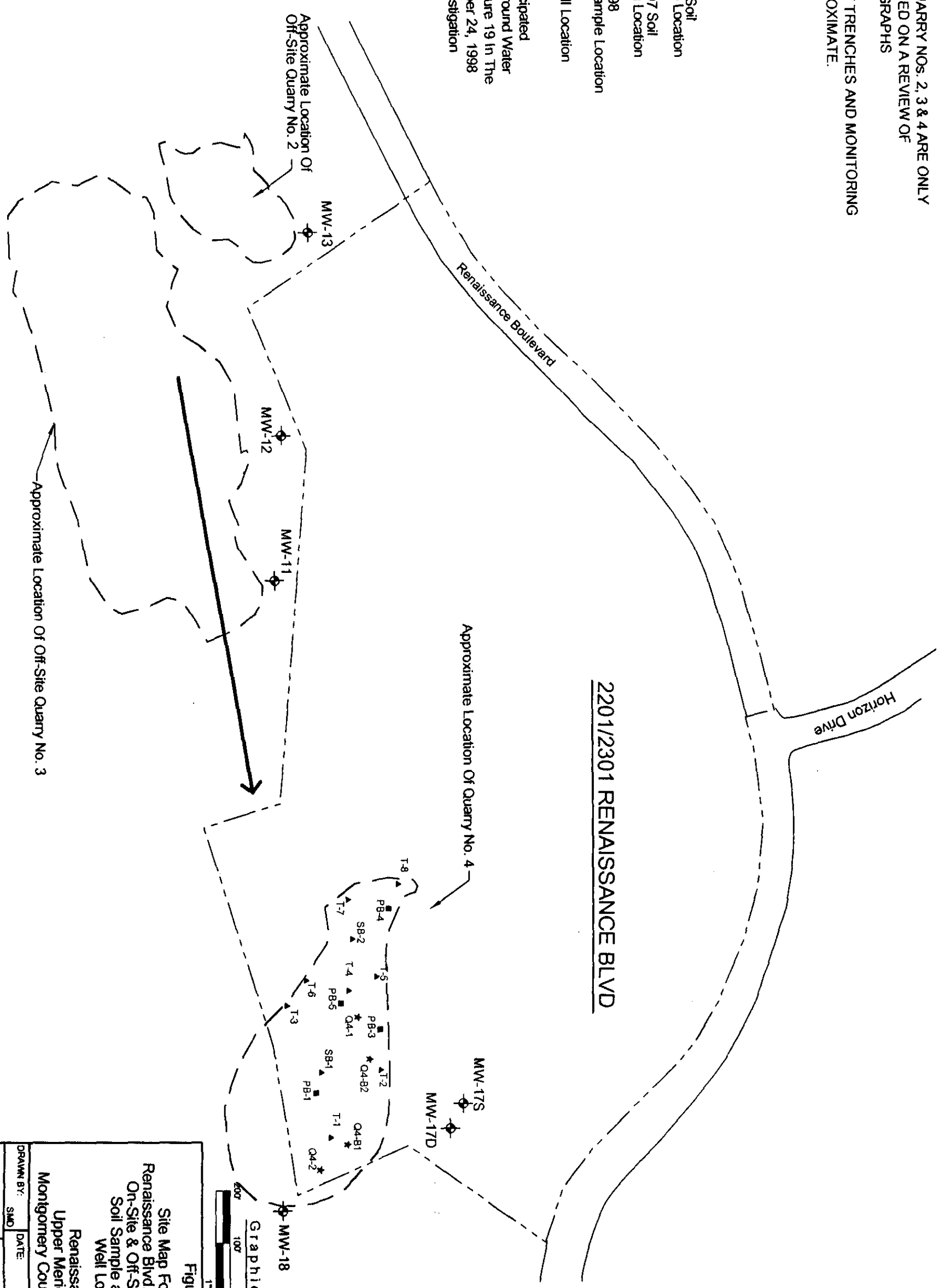


Figure 1
Site Map For 2201/2301 Renaissance Blvd. Showing Pertinent On-Site & Off-Site Features and Soil Sample and Monitoring Well Locations

Renaissance Park
Upper Merion Township
Montgomery County, Pennsylvania

DRAWN BY: SMD DATE: 10-Jan-01 SCALE: 1"=200'

Penn E&R
Environmental & Remediation, Inc.
2755 Burgoyne Road
Huntfield, Pennsylvania 19440
215-997-9000 fax-215-822-8575

AR000693

EPA REGION III
SUPERFUND DOCUMENT MANAGEMENT SYSTEM

DOC ID 347985
PAGE # AR000694

IMAGERY COVER SHEET
UNSCANNABLE ITEM

| | |
|---------------------------------|-------------------------|
| SITE NAME | <u>Crater Resources</u> |
| OPERABLE UNIT | <u>UAD</u> |
| ADMINISTRATIVE RECORDS- SECTION | VOLUME <u>I</u> |

| | |
|------------------------------------|---|
| REPORT OR DOCUMENT TITLE | <u>Response to special</u> <u>Notice letter - liberty property trust.</u> |
| DATE OF DOCUMENT | <u>1-24-01</u> |
| DESCRIPTION OF IMAGERY | <u>See layout Map for 220/230/</u> <u>Renaissance Blvd. showing the approximate limits of</u> <u>Quarry # 4</u> |
| NUMBER AND TYPE OF IMAGERY ITEM(S) | <u>1 oversized Map</u> |



Eastern Side of the 2201 Building Showing the Quarry Covered
With an Asphalt Parking Lot and Detention Basin

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East Side of Detention Basin – Note Slope
Of Soil Cover in this Area

AR000696

2201 Building Looking South

AR000697